

REMARKS

Reconsideration of the Application in view of the above amendments and the following remarks is respectfully requested.

The Examiner rejects Claims 9-10, 12-14 and 22-25 under 35 U.S.C. 103(a) as being unpatentable over Willebrand in view Reichman, et al. The Examiner states that Willebrand teaches an optical wireless link, but differs from the claimed invention by failing to specifically teach data packets time division multiplexed with control packets into a single package stream. The Examiner states that it is clear that Willebrand teaches that data and control information are multiplexed onto a modulated light beam and specifically refers to reference numerals 24, 46 in Fig. 11 and column 13, lines 12-16 as well as column 15, line 6-10. The Examiner also states that Willebrand teaches that control and data signals are encoded with each other and that a variety of different techniques are known and available for encoding and decoding information onto a (sic /) from a fundamental wavelength and refers to column 6, lines 37-48. The Examiner states that Reichman, et al., in the same field of endeavor, would have suggested time division multiplex control and data packets to one skilled in the art. The Examiner further states that is clear the teachings of Willebrand at column 6, lines 37-48 and reference numeral 46, 48 in Fig. 11 and teaches Reichman, et al. in column 4, lines 54-62 would have suggested that time division multiplexing of data and control packets to one skilled in the art. The Examiner states that one skilled in the art would have been motivated to time division multiplex control and data packets in order to have the ability to send control information at predetermined intervals of time. The Examiner thus concludes that it would have been obvious to one skilled in the art at the time the invention was made to have time division multiplex control and data packets, as taught by Reichman, et al. in the device of Willebrand.

This rejection is respectfully traversed. The Examiner refers to column 13, lines 12-16. The Examiner reads the term "multiplexed" as being time division multiplexing, whereas there is no suggestion that time division multiplexing will work in the system of Willebrand. The Examiner has specifically referred to column 6, lines 37-48 and reference numerals 46, 48 in Fig. 11. However, all of the multiplexing techniques referred to in this portion of the specification, including the wave division multiplexing (WDM), not underlined by the Examiner on the copy of the reference sent to Applicants, are frequency division multiplexing. Thus, there is no justification for the Examiner's leap of faith analysis that's a term "multiplexing" in the column 13 description refers to time division multiplexing. Furthermore, referring to column 12, lines 54 through the end of the column, which have been underlined by the Examiner in the copy sent to applicant, the text reads "...one of the signals communicated between the link head stations...is used to communication status and control information between the link head stations..." (emphasis added). It should be noted that Willebrand refers to multiple signals in this portion of the description, which is commensurate with frequency division multiplexing and specifically not commensurate with time division multiplexing. Furthermore, it should be noted that the portion of column 6 which the Examiner has cited several times in his rejection recites, in pertinent part: "The optical signals conducted over the free space links 24 and fiber links 26 are preferably laser beams whose fundamental frequency or wavelength is encoded by signals of other frequencies which contain the information to be communicated." (emphasis added). Thus, despite all the statements made by the Examiner, it is clear that Willebrand only contemplated frequency division multiplexing.

The Examiner cites Reichman, et al. as being in the same field of endeavor. Although the Examiner has not stipulated what the "same field of endeavor" is, Applicants do not believe that this is correct. Reichman, et al. does not relate to optical systems in which control information regarding the aiming of the optical transmitter and receiver is embedded within the optical wireless link. In fact, the problem in Reichman, et al. is quite different than the present invention. In Reichman, et al., a hub computer is arranged in a network with a plurality of remote computer terminals to form a mesh communications network. The purpose of the control signals is to assign the frequencies for the communication between terminals on the mesh. Thus the art is not analogous to the present invention.

Time division multiplexing utilizing packets requires additional circuitry to "packetize" the data and further circuitry to insert the control packet into the data stream. In addition, it requires circuitry to encode the packet as a control packet at the transmission side and decode the packet as a control packet and route it to the control circuitry at the receiving side. Reichman, et al. states at column 4, lines 37-40: "...system access is preferably provided by frequency and time division multiplexing of the monitor and control signals." (emphasis added). Therefore, one applying the teaching of Reichman, et al. to Willebrand where frequency multiplexing is only used, would not be guided to time division multiplexing. Furthermore, although the Examiner states that one skilled in the art would have been motivated to time division multiplex control and data packets in order to have the ability to send control information at predetermined intervals of time, there is no showing or suggestion in Willebrand that time division multiplexing is appropriate for such optical systems, and thus there is no teaching or suggestion to combine the two references.

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Accordingly, Applicants believe that the claims as presently constituted are in condition for allowance, and such action is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W. B. Kempler', with a long horizontal flourish extending to the right.

William B. Kempler
Senior Corporate Patent Counsel
Reg. No. 28,228

Texas Instruments Incorporated
P. O. Box 655474, M/S 3999
Dallas, Texas 75265
(972) 917-5452
Fax: (972) 917-4418